

REMARKS

In the Office Action, claims 1-8 were pending, and claims 1-8 were rejected. Claim 1 has been amended. The amendment does not contain new matter. Support for the amendment can be found in the application as originally filed. Please consider the following remarks.

I. Rejection under 35 U.S.C. §112

In the Office Action at page 2, number 2, claims 1-2, 4 and 6-8 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner alleges the claims contain subject matter- the exclusion of R groups containing a primary amine- which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As stated in a previous response, the law states "the test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language." See In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed Cir. 1983). In this instance, it is clear that the invention as described in the original application included a static friction reducing amount of a member selected from the group consisting of the reaction products of ...anhydride with a primary aliphatic amine of the formula $R-NH_2$ wherein R is a C_4-C_{30} hydrocarbyl group including (a) embodiments where a primary amine is contained and (b) embodiments where a primary amine is not contained. By way of amendment, Applicants simply excluded certain embodiments disclosed in the originally filed specification where the static friction reducing amount of a member comprises the reaction products of anhydride with a primary aliphatic amine of the formula $R-NH_2$ wherein R is a C_4-C_{30} hydrocarbyl group which contains a primary amine.

Because such an amendment is legally permissible when, as in this case, the disclosure of the application as originally filed reasonably conveys to the artisan that the

inventor had possession at the time of the later claimed subject matter, Applicants respectfully request the withdrawal of this rejection.

II. Rejection under 35 U.S.C. §102

In the Office Action at page 2, number 3, claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being anticipated by US Patent No. 4,505,835 ("Sung"). Applicants respectfully traverse this rejection.

A. The Present Invention

The present invention as recited in claim 1 is a power transmission fluid composition which comprises: (a) a major amount of an oil of lubricating viscosity; (b) an effective amount of a power transmission fluid performance additive package; and (c) a static friction reducing amount of a member without COOH or COO⁻ moieties selected from the group consisting of the reaction products of maleic or succinic acid or anhydride or a C₁-C₆ alkyl substituted maleic or succinic acid or anhydride with a primary aliphatic amine of the formula R-NH₂ wherein R is a C₄-C₃₀ hydrocarbyl group which does not contain a primary amine.

B. Sung

Sung discloses a lubricant composition includes a mineral lubricating lubricant composition and a friction modifying amount of a specific reaction product of an amine and maleic anhydride which contain COOH or COO⁻ moieties.

C. Traversal of the Rejection

For a claim to be anticipated under 35 U.S.C. §102(b), each and every element set forth in a claim must be found in a single prior art reference. Verdegaal Bros. vs. Union Oil Co. of California, 814 F.2d 628, 63, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The present invention as recited in claim 1 is a power transmission fluid composition which comprises a static friction reducing amount of a member ("static friction member") without COOH or COO⁻ moieties selected from the group consisting of the reaction

products of maleic or succinic acid or anhydride or a C₁-C₆ alkyl substituted maleic or succinic acid or anhydride with a primary aliphatic amine of the formula R-NH₂ wherein R is a C₄-C₃₀ hydrocarbyl group which does not contain a primary amine.

In contrast to the present invention as recited in claim 1, Sung discloses a reaction product between an amine and maleic anhydride which includes COOH or COO⁻ moieties. Such moieties are explicitly excluded from the static friction reducing amount of a member recited in claim 1 of the present invention. As a result, Sung does not anticipate the present invention as recited in claim 1, and Applicants respectfully request the withdrawal of this rejection.

Claims 2-4 and 6, directly or indirectly, depend from claim 1 of the present invention and recite the invention in varying scope. As discussed above, Sung cannot render the present invention obvious as recited in claim 1 and further limited by claims 2-4 and 6 because the reaction between an amine and a maleic anhydride in Sung must contain moieties which are explicitly excluded from the static friction reducing amount of a member recited in claim 1 of the present invention as further limited by claims 2-4 and 6. Consequently, Applicants respectfully request the withdrawal of this rejection of claims 2-4 and 6.

III. Rejections under 35 U.S.C. §103

A. Rejection over Sung in view of U.S. Patent No. 5,344,579 (Ohtani)

In the Office Action at page 3, number 4, claims 7 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sung in view of Ohtani. The Examiner alleges it would have been obvious to one of ordinary skill in the art to include the fluid disclosed in Sung in an automatic transmission or other power transmission device as taught by Ohtani for the purpose of extending the useful life of the transmission device. Applicants respectfully traverse this rejection.

1. Ohtani

Ohtani discloses new friction modifier system which has the capability of establishing and maintaining a substantially constant static breakaway coefficient of friction between a pair of friction surfaces that are periodically frictionally engaged with each other. The additive composition yielding these results comprises at least the following components: a) a hydroxyalkyl aliphatic imidazoline in which the hydroxyalkyl group contains from 2 to about 4 carbon atoms, and in which the aliphatic group is an acyclic hydrocarbyl group containing from about 10 to about 25 carbon atoms; and b) a di(hydroxyalkyl) aliphatic tertiary amine in which the hydroxyalkyl groups, being the same or different, each contain from 2 to about 4 carbon atoms, and in which the aliphatic group is an acyclic hydrocarbyl group containing from about 10 to about 25 carbon atoms.

2. Traversal of the Rejection

For a proper rejection under Section 103, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The present invention as recited in claim 1 is a power transmission fluid composition which comprises a static friction reducing member without COOH or COO⁻ moieties selected from the group consisting of the reaction products of maleic or succinic acid or anhydride or a C₁-C₆ alkyl substituted maleic or succinic acid or anhydride with a primary aliphatic amine of the formula R-NH₂ wherein R is a C₄-C₃₀ hydrocarbyl group. As discussed above, the static friction member is a monosuccinimide of a primary alkyl amine which does not contain a primary amine. Claim 7 recites a power transmission

device containing the composition of claim 1, and claim 8 recites an automatic transmission apparatus containing the composition of claim 1.

The Examiner is alleging that the present invention as recited in claim 1 as further limited by claims 7 and 8 is obvious in light of the combination of Sung and Ohtani. Specifically, the Examiner alleges it is obvious to include the fluid disclosed in Sung in an automatic transmission or other power transmission device as taught by Ohtani.

As stated above, Sung discloses a reaction product between an amine and maleic anhydride which includes COOH or COO⁻ moieties. Such moieties are explicitly excluded from the static friction reducing amount of a member recited in claim 1 as further limited by claims 7 and 8 of the present invention. Therefore, the combination of references does not teach or suggest all the claim limitations. Specifically, the combination does not teach or suggest a static friction reducing member without COOH or COO⁻ moieties as recited in claim 1 and further limited by claims 7 and 8. Applicants respectfully request the withdrawal of this rejection of claims 7 and 8.

B. Rejection over U.S. Patent No. 6,337,309 ("Watts") in view of U.S. Patent No. 4,396,516 ("Kinoshita") and further in view of U.S. Patent No. 5,597,506 ("Bloch")

In the Office Action at page 3, number 5, claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Watts in view of Kinoshita and further in view of Bloch. The Examiner stated Kinoshita does not teach the C18 hydrocarbon group is linear forming octadecyl amine as in claim 5 or branched, but it would have been obvious to one of ordinary skill in the art at the time that the saturated C18 hydrocarbyl group attached to the amine of Kinoshita should be linear octadecyl amine to form a friction reducing additive as taught by Bloch. Applicants respectfully traverse this rejection.

1. Watts

Watts discloses a zinc-free lubricating composition for lubricating a continuously variable transmission is disclosed, the lubricating composition comprising a mixture of a major amount of a lubricating oil and an effective amount of a performance enhancing additive combination comprising: (a) an ashless polyisobutenyl succinimide dispersant;

(b) at least one organic thioether phosphite; (c) a calcium phenate overbased detergent at a concentration such that the total amount of calcium in the fluid is less than about 500 ppm; (d) friction modifiers comprising one or more succinimides and one or more ethoxylated amines; and (e) a primary amide of a long chain carboxylic acid.

2. Kinoshita

Kinoshita discloses a lubricant comprising an imide compound obtained by reacting a dibasic acid selected from the group consisting of succinic acid, maleic acid, glutaric acid and phthalic acid with a primary amine having a C_8 - C_{18} hydrocarbon radical.

3. Bloch

Bloch discloses additives comprising (1) at least one friction modifying chemical additive having a polar head group and a friction reducing substituent group and (2) at least one non-friction reducing additive and/or friction increasing additive having the same polar group as the friction modifying chemical additive, but having a substituent group which has no material friction raising or lowering effect (non-friction reducing additive) or a substituent group which increases the friction coefficients (friction increasing additive) of the composition.

4. Traversal of the Rejection

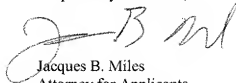
The rule for a proper rejection under Section 103 is shown above. The present invention as recited in claim 5 is a composition of claim 1 wherein the amine is a octadecyl amine.

As discussed in a previous response, it is not proper to combine Watts and Kinoshita under §103 because the composition of Watts comprises a di-succinimide friction modifier and the lubricant of Kinoshita comprises an imide base lubricant. In light of the vastly different uses of the imide compound in Watts and Kinoshita, respectively, no ordinary person of skill in the art would modify Watts based on the teaching in Kinoshita. As a result, Applicants respectfully request the withdrawal of this rejection.

IV. Conclusion

Based upon the foregoing, it is submitted that the invention now claimed is neither anticipated, nor rendered obvious by the prior art of record and that the application is now in condition for allowance. The Applicants therefore request that the application now be passed to issue.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'J B Miles', is written over the printed name.

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